AMENDMENTS TO THE CLAIMS

1. (currently amended) A preform mold apparatus for brake friction components, which apparatus comprises:

a constraint fixture having a bottom plate and an internal area corresponding in shape to the shape of a desired preform, said internal area being defined by [[an]] a perforated annular ejector plate, a inner wall, an outer wall, and [[an]] a perforated annular top plate;

locking means to maintain the top plate in place in the constraint fixture; and

means for lifting the constraint fixture out of the mold apparatus.

2. (cancelled).

3. (currently amended) The apparatus of claim 1 [[2]], wherein the bottom plate comprises holes to facilitate ejection of the ejector plate.

4. (cancelled).

5. (currently amended) The apparatus of claim 1 [[4]], wherein said locking means comprises a plurality of locking cams (5).

6. (original) The apparatus of claim 1, further comprising annular inner and outer filling rings (13, 12) to facilitate loading of the mold with fibrous materials.

7. (cancelled).

8. (currently amended) The apparatus of claim 1 [[7]], wherein said lifting means comprises an eyebolt fixed in a hole in the bottom plate.

9. (currently amended) A method of manufacturing preforms for brake friction components, which method comprises the steps of

placing carbon fiber materials comprising loose fibers, and optionally fillers and/or additives into a constraint fixture in a mold apparatus in the absence of binders,

compressing said carbon fiber materials to form a fibrous matrix,

removing the constraint fixture containing the compacted fibrous materials from the mold apparatus, and

subjecting said materials in said constraint fixture to densification by one or more of Resin Transfer Molding, resin or pitch infiltration, and Carbon Vapor Deposition to produce a brake friction component preform.

10. (cancelled).

11. (original) The method of claim 9, wherein said loose fibers are produced by chopping continuous fiber tow and wherein the chopped fibers are sprayed into the constraint fixture.

12. (original) The method of claim 11, further comprising the step of lining said constraint fixture with a veil prior to spraying the chopped fibers into said constraint fixture.

13. (original) The method of claim 9, wherein binderless chopped fibers are pressed at a pressure of about 3-10 atmospheres to compact them to a density suitable for densification.

14. (cancelled).

15. (original) The method of claim 9, wherein said brake friction component preform is configured as an aircraft landing system brake disc.